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The Swansea 6D model: A diagnostic and conversational framework for supervisors, mentors and doctors in training

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ABSTRACT

Doctors in training are particularly vulnerable to stress and burnout, with the transition into the early parts of training being a period of acute anxiety. Supervisors and mentors have a key role to play in helping trainees make the transition from medical student to practising doctor. This often involves professional conversations, ranging from the relatively routine to difficult issues. The Swansea 6D model has been designed as a guidance tool which provides a simple, memorable framework around which conversations can be structured in terms of identifying meaningful expectations, providing explanations and reframing situations.

WHAT IS ALREADY KNOWN ON THE SUBJECT

- The transitions between medical school and postgraduate training and between posts is very stressful for doctors in training
- A number of mentoring and supervision frameworks exist from outside medicine which are available to supervisors and mentors
- In periods of high anxiety, individuals can often find it hard to think clearly and objectively about their problems or issues
- There is a lack of models or frameworks which enable clinical supervisors and their supervisees to explain, frame and reframe an issue, and work together towards a positive solution

MAIN MESSAGES

- Doctors in training are vulnerable to stress and anxiety, particularly during periods of transition
- The Swansea 6D model provides a framework around which supervisors and supervisees can structure professional conversations
- The model enables the definition and agreement of meaningful expectations and explanations, and a way to help reframe situations and provide appropriate support.

INTRODUCTION

It is widely reported that doctors in training are particularly vulnerable to stress and burnout,[e.g. 1-2] with the period immediately post-medical school being a time of acute anxiety.[3] Trainees are adjusting to the everyday pressures of working life, whilst trying to develop clinical competence and

confidence in relatively short rotations, amongst well-established teams who provide varying levels of support and supervision. Although trainees are willing to ask for help in clinical situations, their career stage and environment seems to inhibit help-seeking methods for stress and mental health.[4]

In most countries, doctors in training are allocated an educational or training supervisor who reviews and reports on their progress. More senior clinicians provide day-to-day clinical supervision, and individuals in other roles (e.g. speciality tutors, regional advisers and programme directors) also provide various types and levels of educational supervision. Increasingly, it is recognised that supervisors require training to provide more effective supervision. In the UK for example, the General Medical Council requires all educational supervisors who work with medical students and doctors in training to be trained in educational supervision. Despite the existence of requirements and other standards,[e.g. 5] supervisors' training varies greatly between organisations, but typically comprises only one or two days. Anecdotally, the main concerns of those supervising are managing 'doctors in difficulty' and, reflecting this, most programmes include tend to focus on this. Supervisors are therefore not always fully aware of existing support services and have little training on the wider aspects of pastoral support.

A multi-stage process was used to develop an evidence based toolkit for health professional educators to have challenging conversations with student/trainees whose performance is cause for concern. To begin with, a group of medical educators with expertise in the theory and practice of student/trainee support, fitness to practice, curriculum, assessment, and educational theory critically appraised the relevant literature and identified six broad themes which were formed into the Swansea '6D model'. This was initially used as a simple, effective tool for personal tutors to give 'first-response' pastoral support to medical students who were struggling,[6-7] and aimed to give the student insight into their difficulties. The model was iteratively refined by sharing it with a diverse range of international colleagues via posters, short communications and workshops at several conferences, faculty development activities, and through social media. The principles of the model were refined on the basis of feedback, subject to independent peer review, and further revised.

This paper presents the model as a framework for supervisors, mentors and other support workers to use with doctors in training. It can be used to help define and set expectations, determine what might be going on for the trainee, and identify how appropriate timely support can best be provided.

THE 6D MODEL

The model is a diagnostic and remedial framework comprising six "Ds" that offer perspectives or descriptions of how doctors in training might present with problems affecting their clinical work or engagement with learning. The 'trigger', one of the 6Ds, might be health, personality-related or due to a workplace or personal situation (Table 1).

Table 1: Defining the 6Ds

The 6 Ds	What this means for doctors in training
Derailer	An event or situation is perceived as highly pressured; they respond by losing focus on their training programme or struggle to cope using their usual strategies.
Dilemma	When they are struggling to make a choice about a difficult decision.
Disaster	An event perceived to be of such negative consequence that they cannot see how they will recover or get back on track.
Disengagement	When enthusiasm and motivation is low and/or there is reduced participation in work activities e.g. not fully contributing to team work or engaging in initiatives.
Disorder	A medical or psychological condition which may impact on ability to work and/or study. Whilst many disorders are disabilities (including specific learning disabilities, physical and sensory impairments) it also includes other health issues, such as long/short term conditions and mental health problems.
Distracter	Anything that takes their attention and focus away from clinical work and training; ranging from relatively low level, short term or with little impact, to something that has longer term and/or more serious impact.

HOW CAN THE MODEL BE USED?

The 6Ds provide a simple framework to use in a range of professional conversations. The framework takes a coaching or mentoring approach, drawing from the GROW model,[8] which stresses the

importance of mentees being able to define their 'current reality' before they can set realistic goals and action plans. The 6D framework can be used to help:

(1) identify problems early, define the 'reality' and set and manage expectations
(2) explain and make sense of a situation
(3) reframe a situation

Each of these is discussed below with examples of how to use the Ds in practice.

1 Using the 6Ds to identify problems, define 'reality' and set and manage learner expectations

Newly graduated doctors have to learn to manage their own and others' expectations around becoming an employee, the rigours of training and working shifts. This can take time and supervisors can help by 'normalising' the situation, making sure the trainee knows that all new doctors feel overwhelmed in the early days. Any transition is accompanied by a dip in both emotions and performance/competence and this needs to be acknowledged and managed,[9]. Kilminster et al.[10-11] describe the training transitions of doctors as critically intensive learning periods (CILPs) where time and support is required to help them adjust to new work environments and cultures. The transition from medical student to practising doctor is a major life transition with practical and professional identity components and any disruption to the fragile emerging 'doctor' identity can be very challenging. During this transition, the amount and nature of practical support can change radically. At university, students are provided with and have easy access to a range of support provisions designed to help them progress towards graduation, but support for doctors in training is much less proactive and structured.

In the initial stages of training, doctors occasionally need help in managing the shift from student to employee and solving perceived **dilemmas**. For example, a student with domestic responsibilities might not have worked shifts and may have been supported by their university tutor to help manage their time effectively, identify priorities and determine strategies for study and assessment. In the workplace, the supervisor's primary concern will be effective clinical working and meeting training requirements, and this might need the new doctor to review child-care arrangements to manage full-time training. For trainees who are still socially 'over-active', a firm 'parental' type approach,[12] may help them to minimise **distracters** and develop greater insight into the realities of employment.

University social activities, such as sports or societies, can act as stress-relievers for students, losing these may also impact on wellbeing.

The primary purpose of a medical programme is to prepare graduates who are fit to practice. Whilst medical schools are now often required to transfer information relating to misconduct or other issues that might impact on fitness to practice to regulatory or employing organisations, universities tend to place more emphasis on students' 'fitness to study' rather 'fitness to practice'. Students with an identified **disorder** are likely to have had 'reasonable adjustments' put in place that allowed them to attain course competencies (see Case study 1). Patient safety is the overriding concern in the clinical context, and therefore supervisors need to be aware of the impact on the new doctor of the loss of structured support. A trainee with any disorder will require effective and flexible coping strategies for working in busy clinical services. This may involve direct input or access to support services. Ideally, the supervisor should have been made aware of support needs and the new doctor should have been referred to specialist support services, but support provisions for the individual may not work in practice immediately and supervisors may need to help the trainee apply suggested techniques into their everyday work. Because trainees work with many different colleagues, they should be encouraged to explain their specific needs to others and be reassured that doing so will not act as a barrier to career success.

Case study 1

Tim was assessed for dyslexia in his second year at medical school after struggling with written work and was provided with extra support, including additional time for written examinations, being provided with voice activated software and marking compensation for errors made in written assignments. He has just started his first job since graduation, working on a busy medical assessment unit and feels very under pressure. Tim's supervisor tells him that one of the nurses has complained that he prescribed the wrong drug for an acutely unwell patient. Tim is mortified, what a **disaster**. The supervisor asks him which drug he prescribed (which he vocalises correctly) however, when they review the patient notes and drug chart she realises that Tim has written the drug incorrectly due to him feeling pressured and his dyslexia **disorder**.

Following this incident, Tim and the supervisor agreed that in future he will take his time when prescribing and cross-check his spelling in an app and with another person. Tim was also referred to the dyslexia support unit for the development of additional coping strategies.

More information on supporting doctors with dyslexia can be found in Shrewsbury,[25] and Locke et al.[26]

2 Using the 6Ds to explain and make sense of situations

The distinction between the 6Ds in Table 1 is somewhat artificial and one D can lead onto another. However, the model provides various lenses (or frames) through which a situation can be viewed, and strategies and actions agreed between the doctor in training and support person. The clinical working environment can be extremely stressful, with high patient volume, staffing pressures, rota gaps and a lack of support.[4] However those working within it often normalise this, and it is therefore difficult for individuals to admit, or sometimes realise, they are not coping until a crisis occurs. Senge [13] uses the 'parable of the boiling frog' to describe such cultures. If a frog is put into boiling water, it leaps out, however if it is put into cool water and slowly heated, the frog does not realise how hot the water gets until it is too late. Supervisors have a responsibility to monitor the 'temperature' of the work environment. One way of doing this is to watch out for 'red flags' or signs that doctors can exhibit, particularly those who previously have been coping well (Table 2). The development of trustful relationships and regular meetings between supervisor and trainee will help identify issues or 'flags', with the aim of pre-empting major issues or crises.

Table 2: The warning signs of a doctor in difficulty.[27-30]

The 'red flag'	**Description**
Absenteeism	Increasing levels of absenteeism (or lack of response to bleeps etc.) might be a sign of underlying stress or depression. Regular patterns of 'sickness' or lateness might indicate competing outside commitments.
Complaints	Increasing number of complaints (formal or informal) about 'unprofessional behaviours' (e.g. lack of punctuality, rudeness) from other members of staff or patients
Difficulties with assessments	Poor or declining performance or non-completion of e-portfolio activities or workplace based assessments.

Emotional instability	Exhibits frequent mood swings, such as irritability or being easily moved to anger or tears in challenging situations.
Lacking in insight	Rejection, becoming defensive, or responding poorly to constructive feedback on performance, lack of ability to reflect on situations.
Lacking in mental flexibility	Exhibits a fixed mindset, has difficulty thinking 'outside the box' and adapting to unexpected or new situations.
Lacking in personal care	For example, unkempt look, unwashed hair, shabby dress, smelling of alcohol etc.
Lack of engagement in additional activities	Doing 'the minimum' and not offering to stay late, particularly for those that have previously shown high levels of engagement.
Lack of organisational skills	Failure to keep up-to date with routine paperwork or organise work-based assessments or supervision meetings.
Physical or mental health difficulties	Showing signs of major or minor health issues. Might be linked to increased absenteeism (see earlier), appearance or actions at work.
Poor integration with team	Does not work well with other team members. Manifests in a variety of ways e.g. perceived lack of engagement (e.g. shyness, loner), personality clashes or avoidance by other team members.
'Presenteeism'	Being 'ever present' can be a sign that someone is struggling with managing time and priorities and not coping with their workload.
Tiredness and lack of concentration	Visible signs of tiredness, lack of concentration and engagement in work. Often linked to an increasing number of mistakes.

A positive use of the Ds is to help 'frame/reframe' or explain a situation so that it can be better understood and managed. **Dilemmas** are likely to be part of everyday life for trainees, including making career decisions and balancing work with home life. Ensuring staff are approachable and have current knowledge on training information and procedures will help trainees with programme-related dilemmas. Some **distraction** from training requirements in the early stages of transition is probably inevitable when the doctor is settling into their new post or moving to a new locality, organisation or clinical specialty. Many doctors in training have domestic commitments which

provide much-needed support, but might also significantly impair their ability to practise or study because they are tired or have limited time to study for examinations. For trainees with poor time management, who are disorganised or have different priorities, a **distracter** might lead to missing teaching sessions or deadlines for work-based assessment, and ultimately to failure to progress.

Some **distracters** can lead trainees to become completely **derailed** and have such an impact that they might feel unable to continue their training. Other personal or professional issues can lead to a **dilemma** with the trainee genuinely not knowing what to do, or to a **disaster**. **Disengagement** may also be due to a **distracter**, but can also be a sign of underlying psychological or mental health issues. If the cause of the **disengagement** is not identified and addressed, a trainee might slip off the radar and end up withdrawing from training or failing examinations. Many doctors in training struggle if their training takes them away from their support network of friends and family. Others may realise over time that they have made the wrong choice of specialty programme or career. Some trainees find it difficult to work in groups due to their personality (e.g. shy, introvert) or a **disorder** (e.g. autistic spectrum disorder) and may appear disengaged in group situations. Individuals who are very reserved, lack confidence or who seem aloof or distant may become victimised or marginalised within the trainee body and struggle working in multi-professional teams. Such perceived or actual social exclusion can lead to unhappiness, further withdrawal, anxiety and depression and in severe cases, suicide. **Disengagement** might also present as poor or irregular attendance or lack of motivation which should be picked up through monitoring and would provide a trigger for a conversation. Trainees, particularly those who are mildly depressed or have anxiety, may be reluctant to admit their struggles. It is important to establish a culture that acknowledges that such feelings are common, makes it transparent where people can turn to for department or external independent support, and ensures that accessing mental health support is free from stigma.

By the time that students become doctors in training, those with long-standing physical (including long term conditions such as diabetes or epilepsy) or sensory **disorders** (e.g. colour blindness) should have developed coping strategies to adapt to new situations and should be proactive in asking for adjustments to their working and learning environment. The ‘symptoms’ of some health conditions and specific learning difficulties may worsen during stressful periods and, whilst this might be a flag that a trainee is struggling, for others it may just be a natural dip in response to adjusting to a new workplace. Again, regular conversations help the supervisor monitor the situation and, as the trainee settles into working life with the right support provisions, their performance and overall wellbeing should naturally improve.

The appearance of 'flags' that suggest a trainee is not coping can sometimes be indicative of an undiagnosed or non-assessed **disorder**. For example, an assessment of dyslexia is surprisingly common amongst both medical student [14, 15] and trainee [16] academic strugglers. The appearance of dyslexic 'symptoms' may be attributed to unconsciously or naturally developed coping strategies breaking down during prolonged periods where the individual is under challenge or strain.[15] Individuals' responses vary when it is suggested they should be tested for a condition such as dyslexia. Some are relieved, as it explains their struggles, whilst others view it as stigmatising and a possible slur on their intelligence. Students with mental health problems are often reluctant to declare these for fear that they will be stereotyped or stigmatised, that it will impact negatively on their clinical career and even that they may be deemed unfit to practice.[17-19] For individuals undergoing new assessments or diagnosis, supervisors should reassure them that with specialised support provisions, they should be able to fulfil their career aspirations.

Organisations with responsibility for doctors in training should have processes in place for advising and dealing with students who are in extreme difficulty. Equally, supervisors should be trained in identifying situations that qualify as **disasters** and have knowledge of procedures and referral processes. Whilst the early stages of a disaster may be dealt with by the department or supervisor, the downstream consequences of disasters may require involvement of specialised or higher-level organisational services or external agencies e.g. counselling services or postgraduate training bodies.

Case study 2

Lee has been back at work for two months after having her second child. She feels she is coping with the demands of two small children and a full-time training post. Her supervisor has noticed that she seems **distracted,** somewhat **disengaged** with ward activities and sometimes looks a bit unkempt but had decided to turn a blind eye being aware of her domestic situation. However, other team members have now commented that they feel they are 'picking up her slack' as Lee never stays late to finish her work. Lee's supervisor decides to have a conversation with her, using the Ds as a trigger for discussing what might be going on for Lee, how others are seeing her and the impact of her behaviours on the team. This provides a framework to discuss her options and plans for both the short and longer-term, e.g. transferring to part-time training.

3 Using the 6Ds to reframe situations

The third way of using the 6Ds is to help the support person structure a conversation with the doctor in training which helps them to reframe a situation and lead to an action plan (see Case study 2). Although some of the D's may present as being more serious than others (e.g. **disasters**), the perception of the issue by the trainee, supervisor or organisation can vary greatly. What might seem a disaster for one individual (e.g. not passing professional examinations the first time) might, for another, be something they take in their stride. The supervisor can help explain how they and different stakeholders might see an issue, help the doctor reframe this, and advise them so they can cope more effectively. From a practical perspective, each of the Ds can be used as a trigger for framing an issue as part of a conversation, e.g. a supervisor might say:

> *"the nurses on the clinic mentioned that you've seemed a bit **distracted** over the last couple of weeks. What's the reason for that do you think?"*

Here, the supervisor asks an open question with the aim of finding out what is going on, helping the trainee recognise the possible impact of the distraction on patients and colleagues and think through strategies for maintaining focus or solving underlying issues. Distractions are often about maintaining good work-life balance. Doctors in training are typically at an age and stage where they are settling down with partners and/or having children. They may also be engaging in sporting or other leisure activities and trying to develop their careers and enhance employment opportunities through carrying out improvement projects, publishing and presenting their work, and engaging in other professional activities. Many newly qualified doctors, whilst being motivated and committed, highly value career flexibility and a good work-life balance,[20-21] and may be contemplating alternatives to full time training, including part-time training, taking time out for fellowships or working overseas. They also expect their supervisors to act as mentors or coaches,[21] requiring frequent feedback and supportive conversations.

An issue might be raised by the doctor in training, e.g.:

> *"I've just failed my (specialty) examination, it's a **disaster**, I don't know what I'll do now …"*

Here, the supervisor needs to help the trainee put this into perspective, identify and discuss options. If the trainee has failed for the final time, this is actually a disaster and the supervisor needs to provide support and identify next steps. If further opportunities to retake the examination exist, the task of the supervisor is to help the trainee reframe *("yes, I can see that it feels like a **disaster** right now, but you've time to sort things out so let's think of what needs to be done …."*) and put together an action plan.

Individuals vary in their capacity and willingness to actively participate in various activities. Some trainees might appear **disengaged** but are simply quiet, thoughtful individuals who learn by observing and listening. Supervisors can help to point out the possible impact of others' perceptions and identify how the trainee can increase their engagement. Students with a **disorder** can have heightened abilities in other areas, e.g. individuals with sensory impairments may have higher compensatory acuities,[22] or people with specific learning disabilities (SPLDs) may excel in certain areas.[23-24] Helping a learner to identify and focus on their strengths can help to motivate and re-engage someone whose confidence has taken a knock or is undecided in their career pathway.

Unless there are severe issues which need addressing, it is important to get the trainee back on track with their training, draw a line under the event and devise a realistic timetable of learning and work. Regular monitoring meetings can help ensure targets are met and the situation does not escalate so that the doctor is forced to suspend or withdraw from training. However, the supervisor also needs to be pragmatic and be willing to refer to postgraduate training support bodies or careers' advisors in a timely fashion.[17]

CONCLUSION

Whilst the transition from medical student to practising doctor is inherently stressful, some individuals appear to sail through, taking challenges in their stride, whereas others need help in understanding the realities of working life and to develop coping strategies. With its simple , easily memorable structure and focus on identifying realistic expectations, providing explanations and reframing situations, the 6D model provides a framework through which supervisors can have meaningful, professional conversations with doctors in training aimed at supporting them in their role.

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